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(71) Applicant : NIKON CORPORATION

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(54) PHOTOCHROMIC PLASTIC LENS AND PROCESS FOR PREPARING
THEREOF

(57) Abstract:

PROBLEM TO BE SOLVED: To make it possible to manufacture a highly durable and highly photochromic characteristic photochromic lens at a lower cost by a process of adhering a photochromic substance to the surface of a plastic lens substrate by a vacuum evaporation method, and heating so as to be infiltrated in the surface of the substrate.

SOLUTION: A photochromic substance is adhered to the surface of a plastic lens substrate by vacuum evaporation method.

After that, the photocromic substance is infiltrated from the surface of the plastic lens substrate towards the direction of the thickness in the region of the range of about 0.1-100 µm.

The preferable adhesion of the photochromic substance to the substrate of the photochromic substance is a dry system method such as a vacuum evaporation method, a spatter spraying method or the like.

When the vacuum evaporation method is employed, normally, its

degree of evacuation is set to be 5×10^5 Torr or less.

When the plastic lens substrate adhered with the photochromic substance is heat-treated, the photochromic substance is infiltrated in the surface of the plastic lens substrate, resulting in manufacturing the plastic lens with a desired photochromism.